THERE ONCE WAS A DIGITAL LIMERICK

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The concept of digital verse was defined and the possibility demonstrated a year ago in the February 1983 **Word Ways**. The utilization of digits and arithmetic operators to encrypt a limerick was conceived by Leigh Mercer and displayed most ingeniously in an example published by Maxey Brooke in **Word Ways** in the February 1980 issue. The example of digital verse consisted of a single stanza which was, in fact, a palindrome, but not, alas, a limerick. And, although Leigh Mercer's limerick was a marvel of conciseness in its adroit use of integers and mathematical symbols, it did not exemplify a purely digital verse form.

The lack of a digital limerick in a vast and growing literature was not decried by Dr. Cyril Bibby in his masterwork of history and theory of this verse form, The Art of the Limerick (Archon Books, Hamden, Connecticut, 1978). In Gershon Legman's mighty two-volume compendium of five-liners, The Limerick (Bell Publishing Company, New York, New York, 1964) and The New Limerick (Bell, 1977), containing in all 4450 limericks, not one is of the digital species, nor is mention made of such a species. Clearly, the digital limerick has ben inconspicuous by its absence.

Lest this deplorable situation continue indefinitely, I embarked recently on a somewhat desultory quest for an example. To qualify, I decided at the outset that such a specimen should satisfy the following criteria:

* It should consist entirely of digits, written (and read) in sequential order
* It should scan and rhyme according to standard limerick practice
* It should be arithmetically generated from integers and thus, in a sense, follow the tradition of anonymous authorship
* It should have a point which, if not notably clever or risqué, should be of some semantic interest instead of being merely a banal sequence of digits forming a pro forma limerick

After a number of false starts, the following progress can be reported. As a metrical form, the following typical limerick meter was selected:

Dum-da-dum dum-da-dum dum-da
Dum-da-dum dum-da-dum dum-da
Dum-da-dum dum-da

Dum-da-dum dum-da
Dum-da-dum dum-da-dum dum-da

This implied that the digits must comprise 34 syllables in all. It was next decided that unlike the example in "Digital Verse" the rhymes in the digital limerick should not depend upon the vacuous repetition of a single digit, such as 4, at the end of each line.

The realization was quickly reached that rhymes of the desired sort could be obtained by a liberal use of the digits 0 and 1, to be enunciated /none/ and /one/, respectively. Thanks to the existence of several homophones of these words, there was hope that nontrivial semantic content might somewhow be achieved. To make the task slightly more challenging, it was decided to use the digits 0 and 1 exclusively in the limerick. This is tantamount to fashioning it from a 34-digit binary integer.

Because the limerick has five lines, it appeared appropriate to construct the binary integer as the product of five primes. In due course came the realization that the set (2, 2, 7, 43, 10635473) would suffice. Their product is 12805109492, which transforms into the base 2 representation 10111110110011111001110110111110100. This indeed consists of 34 digits, satisfying a necessary condition for the sequence. But were they sufficient? Arranged in the limerick format, they appeared as follows:

1 0 1 1 1 1 1 0
1 1 0 0 1 1 1 1
1 0 0 1 1
1 0 1 1 0
1 1 1 1 0 1 0 0

Unlike the digital stanza, this is not a palindrome, but limericks rarely are, and the introduction of such a constraint might have prolonged the search unduly.

The task remained of inserting the words **none**, nun, **one**, **won**, **wan** and **Juan** (all homophones of 0 and 1, at least approximately) into the pattern of 0s and 1s to supply the desired semantic interest. The arrangement chosen appears below. Although lacking much of the sparkle and wit of the anthologized limericks, this specimen is not totally devoid of merit, particularly if read on the premise that it relates to the outcome of a competition or lottery involving only two entrants.

One nun won one; one won, one nun.
One won none; none one won. One won.
One nun, nun one, won.
One none won, won none.
One Juan, wan one, none won -- none, none!

Like the Greeks before them, the French reputedly have appropriate words for everything -- "le mot juste", as they say. One hopes that the digital limerick above has won one such as "tour de force", none like "coup manqué" -- none!